

REMARKS

Applicant thanks the Examiner for his careful review of the application in the Action dated 05/07/03 and for previously finding allowable subject matter in claims 10, 11, 22 - 24, and 29 - 31.

The claims have been amended (claims 43 and 47 excepted) to apply to cylindrical bodies, typically fluorescent tubes. For the Examiner's convenience, applicant repeats below the arguments presented in the amendment after final rejection.

As explained in the application, the process for replacing large numbers of bulbs in fluorescent fixtures has been inconvenient. The bulbs are packaged perhaps 25 to a cardboard box. For a number of reasons it is far and away most convenient to put the old bulbs into the box holding the new bulbs: Only one box needs to be carried from one fixture to the next. Using one box holds the bulbs in close proximity so that they are less likely to rattle against each other and possibly break. (Broken bulbs are at best, messy, and if the fluorescing powder become air-borne, a health hazard as well.)

However, as good bulbs and worn-out bulbs are swapped between the fixtures and a box, after a few worn-out bulbs are in the box, it is difficult for the service person to distinguish the good bulbs from those worn out. The invention

provides that the two ends of the otherwise-identical bulbs have different "perceptions", say one red end (signifying worn-out bulbs for example) and one green end (signifying new bulbs). By opening the end of the box where the green ends are, and then always putting worn-out bulbs into the box of new bulbs with their red ends showing, the service person can easily distinguish the new and worn-out bulbs.

This invention thus provides a simple way for the service person to quickly "separate the sheep from the goats" so to speak in a package of mixed good and worn-out bulbs. The cost and speed of replacing large numbers of fluorescent tubes in a safe and efficient way is substantially improved.

The Examiner may feel this invention is so simple that it can't or shouldn't be patentable. Applicant respectfully reminds the Examiner that simplicity by itself does not bar patentability. Only the references determine patentability.

Claims 1 - 4, 7 - 9, and 25 - 28 stand rejected as anticipated by Lyon, US Pat. 3,787,993. Applicants respectfully disagree for the following reasons.

An anticipation rejection requires exact correspondence between each of the elements and the specified functional relationships of the rejected claim, and those of the cited reference. Applicant respectfully suggests that this

correspondence is simply not present between these rejected claims and Lyon.

Claim 1

Lyon discloses a cylindrical container for compressed gasses. The cylindrical container of Lyon does not have "similar first and second ends" as required in the claim. A moment's look at Lyon, Fig. 1 confirms this difference. One end has the valve, the other the container end.

There is no indication in Lyon that Lyon's container is "of the type to be packed with other like articles in side by side arrangement with only one of the ends of each article easily visible", as claim 1 requires. It's possible that these containers are shipped or stored this way, but Lyon is silent on this point. These gas cylinders are typically quite large and unlikely to be packed in this way. Examiner should provide a reference that teaches these gas cylinders are typically shipped in side by side packages.

This characteristic is key. The purpose of this invention is to allow the article to be distinguished from other like articles based on a specially added characteristic on at least one end of two ends having substantially identical geometry. Obviously, the gas cylinder of Lyon does not have such ends.

At any rate, Lyon relies on manually changing the perception by manipulating the band to indicate when the

container is empty. So the status of the cylinders is not indicated by the orientation of the cylinders, but rather by a separate, time-consuming manipulation.

Lyon can be analogized to putting a rubber band around a worn-out fluorescent bulb as it's removed from the fixture. This would obviously be time-consuming when repeated hundreds of times a day, and would not be particularly effective. Once a worn-out bulb is placed in a carton, the rubber band would be at best difficult to see. The rubber band would cause the bulbs to fit much more tightly in the carton. Even shortening the carton will allow only the rubber bands on the peripheral bulbs to be seen and makes the carton far less suitable for shipping worn-out bulbs. And one can be sure that the added manipulation of the fragile bulbs that banding requires will inevitably lead to additional breakage.

The Lyon container does not have the first and second perceptions simultaneously present on the container as is implicit in claim 1. The Lyon container must be converted from one to the other of the perceptions, and can have only one at a time.

Claim 2

Claim 2 can fare no better than claim 1.

Claim 3

Lyon's cylinder has its identifiable characteristic at a point spaced from the upper end, on the periphery of the cylinder. Lyon thus fails to anticipate claim 3 too. Applicant's attorney simply cannot see in Lyon's Figs. 1 and 3 "a first identifiable characteristic located on one said surface" and "a second identifiable characteristic located on another of said surfaces". These surfaces are clearly specified to be at the ends of the cylindrical body. If a number of the Lyon containers are to be packed side by side, the two characteristics are useless for distinguishing between a filled and an empty container, as was discussed in connection with claim 1.

Claim 4

Lyon does not simultaneously show two different color codes on the two ends of the article as is specified in the claim.

Claims 10 and 11

Claim 10 now incorporates the limitations of claim 7. Since Claim 10 has been found to contain patentable subject matter, applicant believes claims 10 and 11 should now be allowable.

Claim 25

Claim 25 depends from claim 1 and is allowable for the same reasons that claim 1 is allowable.

Claim 26

Claim 26 is similar to claim 4 and is allowable for the same reasons.

Claims 27 and 28

Claim 27 is limited to an article wherein the different characteristics are provided by a material that changes color. Support for this limitation is provided at p. 14, lines 6 ff. Lyon is silent on use of a material that changes color or texture automatically, say with time or exposure to light. Accordingly, an additional basis exists for allowing claims 27 and 28.

Claims 5, 6, 33 - 43, and 47 were most recently rejected in Sec. 5 of the Action as obvious over Lyon.

Claim 5

Claim 5 addresses packaging issues. Bearing in mind that claim 5 depends from claim 1, packaging of similar articles with different end structure conformations is of course old in the art, think of cases of beer bottles for example. However, claim 5 provides for orienting articles of claim 1 in a package so that end structures normally appearing to the eye as identical, instead signify the state of the article depending on the orientation of the article. This concept is simply not shown in Lyon. Where in Lyon is there even a mention of a box or carton?

Lyon, if anything, teaches away from claim 5's concept. It is hard to extract from the Lyon text the idea that empty containers are to be stored up side down in a box, which is what the limitation of claim 5 specifies. That concept would completely destroy the purpose of Lyon's invention.

Claim 7

Claim 7 adds the limitation to claim 6 of a marking on the outside that identifies the orientation of the articles within. The idea here is that once a box is opened at one end, it is difficult to close that end. The "perception" should be the same in each box. In the case of fluorescent tubes, this means that the same perception is visible for the new tubes in all of the boxes as the boxes are opened. The installer does not have to change mindsets from one box to the next as to which are the new tubes and which are the worn-out tubes.

Of course, "This End Up" legends on boxes are very old. But these are not intended to designate end structures that differ only in a manner unrelated to the intended functions of the packaged articles as in this situation. "This End Up" legends are intended to avoid damage to the contents or for some other purpose such as safety or convenience.

Accordingly, applicant believes that a further basis for allowing claim 7 exists.

Claims 33 - 42

It is convenient to treat these claims as a group since they are related. Claim 33 provides generally for a flag of some type that forms the "characteristic" of claim 25. Examples of these flags are shown in Figs. 14 - 18. One can see that these flags are in general self-activating, that is the act of installing or otherwise using the article changes the state of the flag.

Examiner has ruled that such flags are "within the engineering design choice". Applicant respectfully disagrees. These are structural features that are altered by use. This is a function that is not even suggested by claim 25. How can such an added feature be a mere matter of design choice, when the feature is not suggested by the higher level claim?

Applicant believes that the limitations of these claims are not a matter of universal knowledge such that the Examiner can take administrative notice of them. Of course flags and symbols are as old as civilization. But on the record, automatically activating flags have never been used to distinguish between new and worn-out articles.

Applicant respectfully suggests that the Examiner is bootstrapping himself here. First he (likely) rules that claim 25 is anticipated. Then he concludes that a further refinement of the claim 25 structure is per se obvious.

Claim 43

Applicant again urges that the package label manipulations claimed are nowhere to be found in the Lyon reference. Nor does Lyon even suggest such manipulations.

Claim 47

Nothing in Lyon provides the function stated in claim 47. Applicant respectfully disagrees with the Examiner where he imports structural limitations into a method claim. What structure is the Examiner referring to? How does one perform this importation? The Examiner seems to be saying that a method for manufacturing or using an article is not patentable if the article is not patentable. This simply is not the law.

General Comments

A variety of referenced prior art acknowledges the problems with handling cylindrical objects. A multitude of product development engineers and analysts, packaging experts, installers, maintenance and technical personnel in a multi-billion dollar fluorescent tube industry have had the problem of bulb replacement facing them. If this invention is obvious in a layman's sense, where is the prior art showing this precise solution with respect to fluorescent light bulbs?

What seems so simple once revealed, has not been shown to be within the grasp of persons relatively skilled in the production, packaging, shipping or use of tubular fluorescent bulbs. With the greatest of respect, applicant suggests that

the Examiner uses hindsight in making these rejections. The courts have explicitly criticized hindsight more than once.

The invention adds significant efficiency to the problem of replacing large numbers of fragile cylindrical objects having topologically indistinguishable ends and supplied many to a box. The fact that the solution is simple, is simply irrelevant. The applicant is entitled to a patent that protects what he invented, no more, and no less.

Conclusion

It strikes applicant that a telephone interview might be useful in advancing this case to final disposition without the need for yet another Action. The applicant is a sole inventor who does not have an infinitely deep pocket for an extended prosecution. He simply wants a patent that gives him sufficient coverage to be commercially valuable. Accordingly, applicant requests an interview with his attorney should the Examiner persist in rejecting these claims.

Nevertheless, in view of the preceding discussion, applicant believes that a strong case has been made for allowing each and every one of these claims and passing this case as now amended, to issue. Applicant respectfully requests such action by the Examiner.


Please charge any deficiencies or credit any overpayment to
Deposit Account 14-0620.

Respectfully submitted,

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By his attorney

Date 9/8/03



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